

Diagnose and Prescribe Online	Activity 52	Skill 52	ⓧ Simplify Numerical Expressions
	Activity 34	Skill 34	ⓧ Whole Number Operations
	Activity 3	Skill 3	ⓧ Round Whole Numbers
	Activity 4	Skill 4	ⓧ Compare Whole Numbers
			ⓧ Prerequisite Skill
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Are You Ready? Intervention Online			

ARE YOU READY?

Diagnose and Prescribe

NO
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Are You Ready?

ⓧ Vocabulary

Choose the best term from the list to complete each sentence.

- The answer in a multiplication problem is called the _____ product
- $5,000 + 400 + 70 + 5$ is a number written in _____ form. expanded
- Arm _____ tells about how many. estimate
- The number 70,562 is written in _____ form. standard
- Ten thousands is the _____ of the 4 in 42,801. place value

Complete these exercises to review skills you will need for this chapter.

ⓧ Compare Whole Numbers

Compare. Write $<$, $>$, or $=$.

- 245 \square 219 $>$
- 5,320 \square 5,128 $>$
- 64 \square 67 $<$
- 784 \square 792 $<$

ⓧ Round Whole Numbers

Round each number to the nearest hundred.

- 10,567 600
- 11,827 800
- 12,164 1,600
- 13,12,852 12,900
- 14,1,237 1,200
- 15,135 100
- 16,15,561 15,600
- 17,452,801 452,800

Round each number to the nearest thousand.

- 18,470 5,000
- 19,3,399 3,000
- 20,9,825 10,000
- 21,26,419 26,000
- 22,12,434 12,000
- 23,4,561 5,000
- 24,11,784 12,000
- 25,468,201 468,000

ⓧ Whole Number Operations

Add, subtract, multiply, or divide.

- 26.18×22
- $396 \div 27$
- $135 \div 3$
- 45×28
- $247 + 96$
- 343×29
- $358 - 29$
- 329

ⓧ Simplify Numerical Expressions

Simplify each expression.

- $30.3 \times 4 \times 2$
- 24
- $31.20 + 100 - 40$
- 80
- $32.5 \times 20 \div 4$
- 25
- $33.6 \times 12 \times 5$
- 360

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Compare Whole Numbers

Round Whole Numbers

Whole Number Operations

Simplify Numerical Expressions

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine when intervention is necessary or when enrichment is appropriate.

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Objective: Assess students' mastery of concepts and skills in this section.

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Quiz for Lessons 1 Through 3

1

Estimate each sum or difference by rounding to the place value indicated.

1. $61,582 + 13,281$; ten thousands 70,000
2. $86,125 - 55,713$; ten thousands 30,000
3. $7,903 + 2,654$; thousands 11,000
4. $34,633 - 32,087$; thousands 3,000
5. $1,896,345 + 3,567,194$; hundred thousands 5,500,000
6. $56,129,482 - 37,103,758$; ten millions 20,000,000

2

8. Jenna's sixth-grade class is taking a bus to the zoo. The zoo is 156 miles from the school. If the bus travels an average of 55 mi/h, about how long will it take the class to get to the zoo? about 3 hours

9. Robin's class is contacting families from her school as part of a fundraiser. If there are 471 families at the school and 27 students in Robin's class, about how many families will each student contact? about 16 families

3

10. $1,280 \div 64$ 20 11. $2,682 \div 39$ $68\frac{13}{10}$ 12. $2,631 \div 24$ $109\frac{8}{5}$ 13. $13,284 \div 27$ 492

14. There were 954 swimmers at the state meet last month. If 53 teams competed and each team had the same number of members, how many swimmers were on each team? 18 swimmers

3

Write each expression in exponential form.

15. $7 \times 7 \times 7$ 7^3
 16. $5 \times 5 \times 5 \times 5$ 5^4
 17. $3 \times 3 \times 3 \times 3 \times 3$ 3^5
 18. $10 \times 10 \times 10 \times 10$ 10^4
 19. $1 \times 1 \times 1 \times 1 \times 1$ 1^5
 20. $4 \times 4 \times 4 \times 4$ 4^4
- Find each value.
21. 3^2 27
 22. 2^4 16
 23. 6^2 36
 24. 8^3 512

25. To start reading a novel for English class, Sara read 1 page. Each day for 4 days she reads double the number of pages she read the day before. How many pages will she read on the fourth day? 16

CHAPTER
1
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NO
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	Activity 2	2 Intervention	Lesson 2
	Activity 1	1 Intervention	Lesson 1
Ready to Go On? Intervention Worksheets		Worksheets	Ready to Go On? Intervention

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Objective: Assess students' mastery of concepts and skills in this section.

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CHAPTER 1
SECTION B

Ready To Go On?

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Quiz for Lessons 4 Through 5

4 Order of Operations

- Simplify each expression.
- $1. 2 + 6 \times 3 - 20$
 - $2. 3 \times 4 \div (10 - 4)$
 - $3. 5^2 + 10 \div 2 - 1 - 29$
 - $4. 4 + (12 - 8) \times 6 - 28$
 - $5. (2^3 + 2) \times 10 - 100$
 - $6. 14 - 3 \times (9 - 6) - 15$

7. Mrs. Webb buys 7 cards for \$2 each, 3 metallic pens for \$1 each, and 1 pad of writing paper for \$4. Simplify $7 \times 2 + 3 \times 1 + 1 \times 4$ to find the total amount Mrs. Webb spends. \$21

5 Properties and Mental Math

- Simplify.
- $8. 4 + 21 + 9 + 6 - 40$
 - $9. 8 \times 12 \times 5 - 480$
 - $10. 45 + 19 + 1 + 55 - 120$
 - $11. 2 \times 17 \times 10 - 340$
 - $12. 2 + 13 + 8 + 7 - 30$
 - $13. 3 \times 2 \times 5 - 30$
- Use the Distributive Property to find each product.
- $14. 5 \times 62 - 310$
 - $15. 9 \times 41 - 369$
 - $16. 4 \times 23 - 92$
 - $17. 7 \times 14 - 98$
 - $18. 5 \times 34 - 170$
 - $19. 11 \times 32 - 352$

20. The Suarez family was on vacation and traveled by car between tourist attractions. One day, they traveled 8 miles, then 63 miles, then 7 miles, and finally 12 miles. How many miles in total did they travel that day? 90 miles

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Diagnose and Prescribe Online	Activity 5	5 Intervention	Lesson 5
	Activity 4	4 Intervention	Lesson 4
Ready to Go On? Intervention		Worksheets	Ready to Go On? Intervention

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Are You Ready? Intervention

Diagnose and Prescribe Online	Activity 34	Skill 34	Whole Number Operations
	Activity 38	Skill 38	Division Facts
	Activity 36	Skill 36	Multiplication Facts
Worksheets		Worksheets	Prerequisite Skill

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NO INTERVENE

YES ENRICH

Vocabulary

- Choose the best term from the list to complete each sentence.
- Multiplication is the $\frac{?}{?}$ of division. Inverse
 - The $\frac{?}{?}$ of 12 and 3 is 36. product
 - The $\frac{?}{?}$ of 12 and 3 is 15. sum
 - Addition, subtraction, multiplication, and division are called $\frac{?}{?}$ operations
 - The answer to a division problem is called the $\frac{?}{?}$ quotient
- Complete these exercises to review skills you will need for this chapter.

Multiplication Facts

- Multiply.
- | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|
| 6. $7 \times 4 = 28$ | 7. $8 \times 9 = 72$ | 8. $9 \times 6 = 54$ | 9. $7 \times 7 = 49$ |
| 10. $6 \times 5 = 30$ | 11. $3 \times 8 = 24$ | 12. $5 \times 5 = 25$ | 13. $2 \times 9 = 18$ |

Division Facts

- Divide.
- | | | | |
|---------------------|---------------------|---------------------|---------------------|
| 14. $64 \div 8 = 8$ | 15. $63 \div 9 = 7$ | 16. $56 \div 7 = 8$ | 17. $54 \div 6 = 9$ |
| 18. $49 \div 7 = 7$ | 19. $30 \div 5 = 6$ | 20. $32 \div 4 = 8$ | 21. $18 \div 3 = 6$ |

Whole Number Operations

Add, subtract, multiply, or divide.

- | | | | |
|----------------------------|-----------------------------|------------------------------|---------------------------------|
| 22. 28 | 23. 71 | 24. $1,218$ | 25. $2,218$ |
| $\frac{43}{+15}$ | $\frac{109}{+38}$ | $\frac{1,648}{+430}$ | $\frac{3,353}{+1,135}$ |
| 26. 72 | 27. 98 | 28. $1,642$ | 29. $3,408$ |
| $\frac{37}{-35}$ | $\frac{53}{-45}$ | $\frac{1,393}{-249}$ | $\frac{1,759}{-1,649}$ |
| 30. $6 \times 13 = 78$ | 31. $8 \times 15 = 120$ | 32. $16 \times 22 = 352$ | 33. $20 \times 35 = 700$ |
| 34. $9 \overline{)72} = 8$ | 35. $7 \overline{)84} = 12$ | 36. $16 \overline{)112} = 7$ | 37. $23 \overline{)1,472} = 64$ |

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Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Multiplication Facts

Division Facts

Whole Number Operations

Assessing Prior Knowledge

INTERVENTION

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CHAPTER 2 SECTION A

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Quiz for Lessons 1 Through 3

1 Variables and Expressions

Evaluate each expression to find the missing values in the tables.

1.

y	$23 + y$
17	40
27	50
37	60

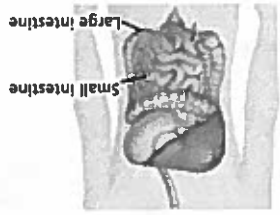
2.

w	$w \times 3 + 10$
4	22
5	25
6	28

3. Stephanie's CD holder holds 6 CDs per page. How many CDs does Stephanie have if she fills 2, 3, 4, or 5 pages? 12; 18; 24; 30

2 Translating Between Words and Math

4. The small and large intestines are part of the digestive system. The small intestine is longer than the large intestine. Let n represent the length in feet of the small intestine. The large intestine is 5 feet long. Write an expression to show how much longer the small intestine is than the large intestine. $n - 5$



5. Let h represent the number of times your heart beats in 1 minute. Write an expression for the total number of times it beats in 1 hour. (Hint: 1 hour = 60 minutes) $60h$

Write each phrase as a numerical or algebraic expression.

- 6. 719 plus 210 $719 + 210$
- 7. t multiplied by 7 $7t$
- 8. the sum of n and 51 $n + 51$

- 9. $n + 19$
- 10. $12 \cdot 13$
- 11. $72 - x$
- 12. $\frac{12}{t}$
- 13. 15 times s , s multiplied by 15 $15s$
- 14. 15 times s , s multiplied by 15 $15s$

3 Translating Between Tables and Expressions

Write an expression for the missing value in the table.

Position	Value of Term
1	8
2	16
3	24
4	32
5	40
n	$8n$

Make a table for each sequence. Then write an expression for the sequence.

- 15. 3, 4, 5, 6, ... $n + 2$
- 16. 4, 7, 10, 13, ... $3n + 1$

READY TO GO ON?

Diagnose and Prescribe

NO INTERVENE

YES ENRICH

Diagnose and Prescribe Online	Activity 3	3 Intervention	Lesson 3
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Worksheets			Ready to Go On? Intervention
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Quiz for Lessons 4 Through 8

4 Equations and Their Solutions

Determine whether the given value of the variable is a solution.

- $c - 13 = 54$ for $c = 67$ yes 2. $5r = 65$ for $r = 15$ no 3. $48 + x = 6$ for $x = 8$ yes
- Brady buys 2 notebooks and should get \$3 back in change. The cashier gives him 12 quarters. Determine if Brady was given the correct amount of change.

5 Addition Equations

Solve each equation. Check your answers.

- $p + 51 = 76$ $p = 25$ 6. $107 = 19 + j$ $j = 88$ 7. $45 = s + 27$ $s = 18$

6 Subtraction Equations

Solve each equation. Check your answers.

- $k - 5 = 17$ $k = 22$ 10. $150 = p - 30$ $p = 180$ 11. $n - 24 = 72$ $n = 96$
- The Kingda Ka roller coaster at Six Flags® Great Escape™ in New Jersey is taller than the Top Thrill Dragster located at Cedar Point™ in Ohio. The difference between their heights is 36 feet. The Top Thrill Dragster is 420 feet high. Write and solve an equation to find the height of Kingda Ka.

7 Multiplication Equations

Solve each equation. Check your answers.

- $6f = 18$ $f = 3$ 14. $105 = 5d$ $d = 21$ 15. $11x = 99$ $x = 9$
- Taryn buys 8 identical glasses. Her total is \$48 before tax. Write and solve an equation to find out how much Taryn pays per glass. $8g = 48$; $g = \$6$

8 Division Equations

Solve each equation. Check your answers.

- $10 = \frac{9}{f}$ $f = 90$ 18. $5 = \frac{6}{f}$ $f = 30$ 19. $\frac{15}{t} = 3$ $t = 45$
- Paula is baking peach pies for a bake sale. Each pie requires 2 pounds of peaches. She bakes 6 pies. Write and solve an equation to find how many pounds of peaches Paula had to buy. $\frac{z}{2} = 6$; $z = 12$ lb

Ready to Go On?

NO INTERVENE

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Lesson 8	8 Intervention	Activity 8	

Evaluate each expression to find the missing values in the tables.

1.

a	$a + 18$
10	28
12	30
14	32

2.

y	$y + 6$
18	3
30	5
42	7

3.

n	$n + 5 + 7$
10	9
20	11
30	13

Write an expression for the missing value in each table.

6.

Packages	Rolls
1	8
2	16
3	24
4	32
p	$8p$

7.

Students	Groups
5	1
10	2
15	3
20	4
s	$\frac{s}{4}$

Write an expression for the sequence in the table.

8.

Position	Value of Term
1	4
2	7
3	10
4	13
5	16
n	$3n + 1$

9. There are more reptile species than amphibian species. There are 3,100 living species of amphibians. Write an expression to show how many more reptile species there are than amphibian species. $n - 3,100$

Write each phrase as a numerical or algebraic expression.

10. 26 more than $n + 26$ 11. g multiplied by 4 $4g$ 12. the quotient of 180 and 15 $180 \div 15$

Write two phrases for each expression.

13. $(14)(16)$ 14. $n \div 8$ 15. $p + 11$ 16. $s - 6$

Determine whether the given value of the variable is a solution.

17. $5d = 70$ for $d = 12$ no 18. $29 = 76 - n$ for $n = 46$ no

19. $108 \div a = 12$ for $a = 9$ yes

Solve each equation.

21. $a + 7 = 25$ $a = 18$ 22. $121 = 11d$ $d = 11$ 23. $3 = t - 8$ $t = 11$ 24. $6 = \frac{9}{k}$ $k = 54$

25. Air typically has about 4,000 bacteria per cubic meter. If your room is 30 cubic meters, about how many bacteria would there be in the air in your room?
about 120,000 bacteria

Answers

13. 14 times 16; the product of 1 and 16
14. the quotient of n and 8; n divided by 8
15. p plus 11; the sum of p and 11
16. 6 less than s ; s minus 6

IDEA WORKS!
Modified Chapter Test

- Performance Assessor
- Multiple Choice (Levels A, B, C)
- Free Response (Levels A, B, C)
- Chapter Tests

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Chapter Test

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Vocabulary

- Choose the best term from the list to complete each sentence.
- The first place value to the left of the decimal point is the $\frac{?}{?}$ place, and the place value two places to the left of the decimal point is the $\frac{?}{?}$ place. ones; tens
 - In the expression $72 \div 9$, 72 is the $\frac{?}{?}$ and 9 is the $\frac{?}{?}$. dividend; divisor
 - The answer to a subtraction expression is the $\frac{?}{?}$ difference
 - A(n) $\frac{?}{?}$ is a mathematical statement that says two quantities are equivalent. equation

Complete these exercises to review skills you will need for this chapter.

Place Value of Whole Numbers

- Identify the place value of each underlined digit.
5. 152 ten
 6. 7,903 thousand
 7. 145,072 thousand
 8. 4,893,025 ten thousand
 9. 13,796,020 million
 10. 145,683,032 ten million

Add and Subtract Whole Numbers

- Find each sum or difference.
- $11. \$425 - \75 \$350
 - $12. 532 + 145$ 677
 - $13. 160 - 82$ 78

Multiply and Divide Whole Numbers

- Find each product or quotient.
- $14. \$320 \times 5$ \$1,600
 - $15. 125 \div 5$ 25
 - $16. 54 \times 3$ 162

Exponents

- Find each value.
- $17. 10^3$ 1,000
 - $18. 3^6$ 729
 - $19. 10^5$ 100,000
 - $20. 4^5$ 1,024
 - $21. 8^3$ 512
 - $22. 2^7$ 128

Solve One-Step Equations

- Solve each equation.
- $23. y + 382 = 743$ $y = 361$
 - $24. n - 150 = 322$ $n = 472$
 - $25. 9x = 108$ $x = 12$

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Are You Ready?

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

- Place Value of Whole Numbers
- Add and Subtract Whole Numbers
- Multiply and Divide Whole Numbers
- Exponents
- Solve One-Step Equations

Assessing Prior Knowledge

INTERVENTION
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NO INTERVENE

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	Activity 34	Skill 34	Place Value of Whole Numbers
	Activity 34	Skill 34	Add and Subtract Whole Numbers
	Activity 34	Skill 34	Multiply and Divide Whole Numbers
	Activity 12	Skill 12	Exponents
Activity 58	Skill 58	Solve One-Step Equations	
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Ready To Go On?

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Objective: Assess students' mastery of concepts and skills in this section.

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CHAPTER 3
SECTION A

Ready To Go On?

Quiz for Lessons 1 Through 3

1 Representing, Comparing, and Ordering Decimals

Write each decimal in standard form, expanded form, and words.

- 4,012
- ten and fifty-four thousandths
- On Monday Jamie ran 3.54 miles. On Wednesday he ran 3.6 miles. On which day did he run farther? Wednesday

Order the decimals from least to greatest.

- 3.406, 30.08, 3.6
- 62.0581, 62.148, 62.0741
- 10.01, 10.10, 10.1
- 16.782, 16.59, 16.79
- 10.10, 10.01, 10.1
- 123.05745, 132.05628, 123.05749
- 123.05745, 132.05628, 123.05749

2 Estimating Decimals

- Matt drove 106.8 miles on Monday, 98.3 miles on Tuesday, and 103.5 miles on Wednesday. About how many miles did he drive in all? about 300 miles

Estimate.

- 8.345 - 0.6051; round to the hundredths
- 16.492 - 2.613; round to the tenths
- 18.79 × 4.68
- 13.71378 ÷ 8.13
- 14.52055 × 7.18

Estimate a range for each sum.

- 7.42 + 13.87 + 101.2
- from 121 to 123
- 16.179 + 3.45 + 7.92
- from 11 to 13.5

3 Adding and Subtracting Decimals

- Greg's scores at four gymnastic meets were 9.65, 8.758, 9.884, and 9.500. What was his total score for all four meets? 37.792
- Mrs. Henry buys groceries each week and uses a spreadsheet to keep track of how much she spends. How much did she spend in all for the month of December? \$263

Grocery Spending for December				
Week	1	2	3	4
Amount Spent (\$)	52.35	77.97	90.10	42.58

- Sally walked 1.2 miles on Monday, 1.6 miles on Wednesday, and 2.1 miles on Friday. How many miles did she walk in all? 4.9 mi

Find each sum or difference.

- 20.047 + 0.03
- 0.50
- 21.8 - 0.6
- 7.4
- 22.22 + 1.8
- 4

Evaluate 8.67 - s for each value of s.

23. s = 3.4
- 5.27
24. s = 2.0871
- 6.5829
25. s = 7.205
- 1.465

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Quiz for Lessons 4 Through 8

4 Multiplying Decimals

Evaluate 5x for each value of x.

1. $x = 1.025$ 5.125 2. $x = 6.2$ 31 3. $x = 2.64$ 13.2

4. Neptune has a gravitational pull 1.2 times that of Earth. If an object weighs 15 pounds on Earth, how much would it weigh on Neptune? 18 pounds

5 Dividing Decimals by Whole Numbers

Find each quotient.

5. $17.5 \div 5$ 3.5 6. $11.6 \div 8$ 1.45 7. $23.4 \div 6$ 3.9 8. $35.5 \div 5$ 7.1

9. Five apples cost \$4.90. How much does each apple cost? \$0.98

6 Dividing by Decimals

Find each quotient.

10. $2.226 \div 0.42$ 5.3 11. $13.49 \div 7.1$ 1.9 12. $35.34 \div 6.2$ 5.7 13. $178.64 \div 81.2$ 2.2

14. Peri spent \$21.89 on material to make a skirt. The material cost \$3.98 per yard. How many yards did Peri buy? 5.5 yards

7 Interpreting the Quotient

15. There are 352 students graduating from high school. The photographer takes one picture of each student as the student receives his or her diploma. If the photographer has 36 exposures on each roll of film, how many rolls will she have to buy to take each student's picture? 10 rolls

8 Solving Decimal Equations

Solve each equation.

16. $f - 6.3 = 8.9$ 17. $4h = 20.4$ 18. $\frac{7}{p} = 4.6$ 19. $d + 2.8 = 9.5$ 20. $d = 6.7$

20. A customer at a deli orders 3.25 lb of turkey breast. She asks if the meat can be evenly distributed into 5 bags. How much turkey breast will be in each bag? 0.65 lb

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Chapter Test



Chapter Test

1. The New York Philharmonic Orchestra performs at Avery Fisher Hall in New York City. It seats 2,738 people. The Boston Symphony Orchestra performs at Symphony Hall in Boston, Massachusetts. It seats 2,625 people. Which hall seats more people? **Avery Fisher Hall**

Order the decimals from least to greatest.

2. 12.6, 12.07, 12.67
 3. 3.5, 3.25, 3.08
 4. 0.10301, 0.10318, 0.10325
 5. 6.178 - 0.2805; hundredths
 6. 7.528 + 6.075; ones
 7. 21.35 × 3.18
 8. 98.547 ÷ 4.93
 9. 11.855 × 8.45
 10. 3.89 + 42.71 + 12.32
 11. 20.751 + 2.55 + 17.4
 12. 4.987 + 28.27 + 0.098

Estimate a range for each sum.

13. Britney wants to exercise in a step aerobics class. The class uses the 4-inch step for 15 minutes and the 6-inch step for 15 minutes. About how many calories will she burn in all? **about 150 calories**

Step Height (in.)	Calories Burned in 15 minutes
4	67.61
6	82.2
8	96

Evaluate.

14. $0.76 + 2.24$
 15. $7 - 0.4$
 16. 0.12×0.006
 17. $5.85 + 3.9$
 18. $b - 4.7 = 2.1$
 19. $5a = 4.75$
 20. $\frac{6}{x} = 7.2$
 21. $c + 1.9 = 26.04$
 22. The school band is going to a competition. There are 165 students in the band. If each bus holds 25 students, how many buses will be needed? **7 buses**

Solve each equation.

23. Martisol bought six sweaters on sale for a total of \$126.24. How much did each sweater cost if they were all marked down to the same price? **\$21.04**

Resources

Assessment Resources

- Chapter Tests
- Free Response
- Multiple Choice
- Performance Assessment

IDEA Works!

Modified Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills the chapter.

INTERACTIVE Online Edition

Diagnose and Prescribe Online	Activity 8	Skill 8	Factors
	Activity 54	Skill 54	Evaluate Expressions
	Activity 7	Skill 7	Multiples
	Activity 15	Skill 15	Write and Read Decimals
Worksheets		Worksheets	Prerequisite Skill
Are You Ready? Intervention Online			

ARE YOU READY?

Diagnose and Prescribe

NO
INTERVENE

YES
ENRICH

Are You Ready?
Enrichment
Worksheets
Online

Factors Find all the whole-number factors of each number.

30, 45, 1, 3, 5, 9, 31, 52, 1, 2, 4, 13, 32, 75, 1, 3, 5, 15, 33, 150, 25, 75, 26, 52, 15, 45

26, 8, 1, 2, 4, 8, 27, 12, 1, 2, 3, 4, 28, 24, 1, 2, 3, 4, 6, 29, 30, 1, 2, 3, 5, 6, 10, 15, 30

Evaluate Expressions Evaluate each expression for the given value of the variable.

20. $y + 4.3$ for $y = 3.2$ 7.5
 21. $\frac{5}{x}$ for $x = 6.4$ 1.28
 22. $3c$ for $c = 0.75$ 2.25
 23. $a + 4 + 8$ for $a = 3.75$ 4.25
 24. $27.8 - d$ for $d = 9.25$ 18.55
 25. $2.5b$ for $b = 8.4$ 21

Multiples List the first four multiples of each number.

12, 6, 12, 18, 24, 30, 15, 12, 24, 36, 48
 13, 8, 16, 24, 32, 14, 5, 10, 15, 20
 16, 7, 14, 21, 28, 17, 20, 40, 60, 80
 7, 14, 21, 28, 14, 14, 28, 42, 56

Write and Read Decimals Write each decimal in word form.

6. 0.5 five tenths
 7. 2.78 two and seventy-eight hundredths
 8. 0.125 one hundred twenty-five thousandths
 9. 12.8 twelve and eight tenths
 10. 125.49 one hundred twenty-five and forty-nine hundredths
 11. 8.024 eight and twenty-four hundredths

Vocabulary Choose the best term from the list to complete each sentence.

1. To find the sum of two numbers, you should add the numerator and denominator.
 2. Fractions are written as a numerator over a denominator.
 3. In the equation $4 \cdot 3 = 12$, 12 is the product.
 4. The difference of 18 and 10 is 8.
 5. The numbers 18, 27, and 72 are multiples of 9.

Prerequisite Skills Complete these exercises to review skills you will need for this chapter.

add, subtract, multiply, divide, numerator, denominator, difference, multiples, product, quotient

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Are You Ready?
Intervention and
Enrichment Worksheets
Online

Resources

Use this page to determine whether intervention is necessary or enrichment is appropriate.

Diagnose and Prescribe
Intervention
Assessing Prior Knowledge
INTERVENTION

Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills
Write and Read Decimals
Multiples
Evaluate Expressions
Factors

Learn It Online
Resources Online

Are You Ready?

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

Ready to Go On?
Intervention and
Enrichment Worksheets
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Quiz for Lessons 1 Through 3

1 Factors and Prime Factorization

List all of the factors of each number.
1. 26 1, 2, 13, 26 2. 32 1, 2, 4, 8, 16, 32 3. 39 1, 3, 13, 39 4. 84 42, 84
12, 14, 21, 28, 1, 2, 3, 4, 6, 7,

5. Mr. Collins's bowling league has 48 members. If the league splits into teams of 12 members each, how many equally sized teams will there be? 4

Write the prime factorization of each number.

6. $96 = 2^5 \times 3$ 7. $50 = 2 \times 5^2$ 8. $104 = 2^3 \times 13$ 9. $63 = 3^2 \times 7$

10. Scientists classify many sunflowers in the genus *Helianthus*. There are approximately 67 species of *Helianthus*. Write the prime factorization of 67. 1×67

2 Greatest Common Factor

Find the GCF of each set of numbers.

11. 16 and 36 4 12. 22 and 88 22 13. 65 and 91 13 14. 20, 55, and 85 5

15. There are 36 sixth-graders and 40 seventh-graders. What is the greatest number of teams that the students can form if each team has the same number of sixth-graders and the same number of seventh-graders and every student must be on a team? 4 teams

16. There are 14 girls and 21 boys in Mrs. Sutter's gym class. To play a certain game, the students must form teams. Each team must have the same number of girls and the same number of boys. What is the greatest number of teams Mrs. Sutter can make if every student is on a team? 7 teams

17. Mrs. Young, an art teacher, is organizing the art supplies. She has 76 red markers, 52 blue markers, and 80 black markers. She wants to divide the markers into boxes with the same number of red, the same number of blue, and the same number of black markers in each box. What is the greatest number of boxes she can have if every marker is placed in a box? 4 boxes

3 Equivalent Expressions

Factor the sum of terms as a product of the GCF and a sum.

18. $28 + 35 = 7(4 + 5)$
19. $36 + 27 = 9(4 + 3)$
20. $4x + 22 = 2(2x + 11)$
21. $28 + 12k = 4(7 + 3k)$
22. $32 + 48 = 16(2 + 3)$
23. $36 - 9 = 9(4 - 1)$
24. $5(25z + 1)$
25. $100k - 25k = 25k(4 - 1)$

Write four equivalent expressions for each expression.
Possible answers to Exs. 22–25:

22. $16 \cdot 2 + 16 \cdot 3$; $16(2 + 3)$; $16(3 + 2)$; $2^4(3 + 2)$
23. $9 \cdot 4 - 9 \cdot 1$; $9(4 - 1)$; $9 \cdot 3$; $3^2 \cdot 3$

24. $5 \cdot 25z + 5 \cdot 1$; $125z + 5$; $5 + 125z$; $5 + 5^2z$
25. $4 \cdot 25k - 1 \cdot 25k$; $(4 - 1)25k$; $3 \cdot 25k$; $3 \cdot 5^2k$

READY TO GO ON?

Diagnose and Prescribe

NO INTERVENE

YES ENRICH

Diagnose and Prescribe Online	Activity 3	3 Intervention	Lesson 3
	Activity 2	2 Intervention	Lesson 2
	Activity 1	1 Intervention	Lesson 1
Worksheets		Intervention	Ready to Go On?
Ready to Go On? Intervention			

Are You Ready?
Enrichment
Worksheets
Online

Ready To Go On?

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

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Answers
19. War and Peace, Empire, 1900, Fanny and Alexander
and Alexander

CHAPTER 4 SECTIONS

Ready To Go On?

Quiz for Lessons 4 Through 7

4 Decimals and Fractions

Write each decimal as a fraction. Write each fraction as a decimal.
1. 0.67 $\frac{67}{100}$ 2. 0.9 $\frac{9}{10}$ 3. $\frac{6}{10}$ 0.16
Compare. Write $<$, $>$, or $=$.
4. $\frac{10}{7}$ 0.9 $<$ 5. 0.4 $\frac{5}{2}$ $=$ 6. $\frac{5}{3}$ 0.5 $>$

5 Equivalent Fractions

Write two equivalent fractions for each fraction.
7. $\frac{9}{12}$ $\frac{3}{4}$ 8. $\frac{42}{18}$ $\frac{7}{3}$ 9. $\frac{30}{25}$ $\frac{6}{5}$ 10. $\frac{24}{5}$ $\frac{48}{10}$
Write each fraction in simplest form.
11. $\frac{14}{2}$ 12. $\frac{12}{28}$ 13. Possible answers: $\frac{2}{3}$, $\frac{12}{18}$
13. Mandy ate $\frac{6}{8}$ of a pizza. Write two equivalent fractions for $\frac{6}{8}$.

6 Mixed Numbers and Improper Fractions

Replace each shape with a number that will make the equation correct.
14. $\frac{7}{2} = \frac{9}{9}$ [1; 7] 15. $6\frac{8}{8} = \frac{49}{9}$ [1; 8] 16. $\frac{9}{4} = \frac{157}{157}$ [17; 9]

7 Comparing and Ordering Fractions

Compare. Write $<$, $>$, or $=$.
21. $\frac{4}{3}$ $\frac{3}{2}$ $>$ 22. $\frac{9}{7}$ $\frac{6}{5}$ $<$ 23. $\frac{9}{4}$ $\frac{7}{4}$ $>$ 24. $\frac{11}{5}$ $\frac{11}{5}$ $=$
Order the fractions from least to greatest.
25. $\frac{5}{8}$, $\frac{2}{4}$, $\frac{1}{3}$, $\frac{4}{6}$, $\frac{1}{2}$, $\frac{8}{3}$, $\frac{4}{3}$, $\frac{2}{3}$, $\frac{4}{3}$, $\frac{5}{7}$, $\frac{10}{3}$, $\frac{5}{7}$, $\frac{10}{4}$, $\frac{4}{3}$
27. $\frac{1}{3}$, $\frac{8}{4}$, $\frac{1}{1}$, $\frac{4}{4}$, $\frac{1}{3}$, $\frac{3}{8}$, $\frac{1}{3}$, $\frac{5}{2}$, $\frac{4}{4}$, $\frac{11}{15}$, $\frac{5}{9}$, $\frac{11}{15}$

World's Longest Movies	
Title	Length (h)
1900	$\frac{318}{60}$
Empire	$\frac{480}{60}$
Fanny and Alexander	$5\frac{1}{2}$
War and Peace	$\frac{831}{60}$

Ready to Go On? Intervention Worksheets	
Lesson 4	4 Intervention
Lesson 5	5 Intervention
Lesson 6	6 Intervention
Lesson 7	7 Intervention
Diagnose and Prescribe Online	

READY TO GO ON? Diagnose and Prescribe

NO INTERVENE

YES ENRICH

Are You Ready? Enrichment Worksheets Online

Chapter Test



List all the factors of each number.

1. 98 2. 40 3. 45 4. 1, 2, 4, 5, 8, 10, 20, 40

Write the prime factorization of each number.

4. $64 = 2 \times 2 \times 2 \times 2 \times 2$
5. $130 = 2 \times 5 \times 13$

Find the GCF of each set of numbers.

7. 24 and 108 12
8. 45, 18, and 39 3

10. Ms. Artrington is making supply boxes for her students. She has 63 pencils, 42 pens, and 21 packs of markers. Each type of supply must be evenly distributed. What is the greatest number of supply boxes she can make if every supply is used? 21 supply boxes

Factor the sum of terms as a product of the GCF and a sum.

11. $21 + 99 = 3(7 + 33)$
12. $88 + 20 = 4(22 + 5)$

Write four equivalent expressions for each given expression. Possible answers are given.

13. $34n + 12 = 2(17n + 6)$
16. $64x + 80 = 16 \cdot 4x + 16 \cdot 5 = 16(4x + 5)$
 $4^2(4x + 5); 4^2(2^2x + 5)$

14. $50 + 225 = 15 \cdot 6(-1)$
15. $6(y - 1) = 6 \cdot y - 6 \cdot 1 = 6y - 6$
 $2 \cdot 3y - 2 \cdot 3 = 2(3y - 3)$

Write each decimal as a fraction or mixed number.

17. 0.37 $\frac{37}{100}$
18. $1.9 = 1\frac{9}{10}$

Write each fraction or mixed number as a decimal.

20. $\frac{8}{3} = 0.375$
21. $9\frac{5}{8} = 9.6$

Write each fraction in simplest form.

23. $\frac{4}{1} = \frac{1}{3}$
24. $\frac{9}{6} = \frac{3}{2}$

Write each mixed number as an improper fraction.

26. $4\frac{7}{8} = \frac{39}{8}$
27. $7\frac{12}{12} = \frac{89}{12}$

Compare. Write $<$, $>$, or $=$.

29. $\frac{6}{5} \square \frac{6}{3} >$
30. $\frac{4}{3} \square \frac{7}{8} <$

Order the fractions and decimals from least to greatest.

32. 2, 17, 2.3, $2\frac{1}{9}$, $2\frac{1}{9}$
33. $0.1, \frac{1}{3}, 0.3, 0.3, 0.1, 0.3, \frac{1}{3}$

34. $0.9, \frac{8}{2}, 0.35$
 $\frac{8}{2} = 0.35, 0.9$

31. $\frac{5}{4} \square \frac{10}{7} >$

28. $3\frac{5}{26} = \frac{7}{7}$

25. $\frac{3}{15} = \frac{1}{5}$

22. $\frac{3}{2} = 0.6$

19. $0.92 = \frac{23}{25}$

Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills the chapter.

INTERACTIVE Online Edition

Resources

Assessment Resources

Chapter Tests

• Free Response

(Levels A, B, C)

• Multiple Choice

(Levels A, B, C)

IDEA Works!

Modified Chapter Test

Are You Ready?

Learn It Online Resources Online

Vocabulary

- Choose the best term from the list to complete each sentence.
- The first five $\frac{1}{6}$ of 6 are 6, 12, 18, 24, and 30. The $\frac{1}{6}$ of 6 are 1, 2, 3, and 6. **multiples**; **factors**
 - Fractions with the same denominator are called **like fractions**.
 - A fraction is in $\frac{?}{?}$ when the GCF of the numerator and the denominator is 1. **simplest form**
 - The fraction $\frac{9}{13}$ is a(n) $\frac{?}{?}$ because the $\frac{?}{?}$ is greater than the $\frac{?}{?}$. **improper fraction**; **numerator**; **denominator**
- Complete these exercises to review skills you will need for this chapter.

Simplify Fractions

Write each fraction in simplest form.

- $\frac{5}{6}$, $\frac{10}{3}$, $\frac{5}{10}$, $\frac{1}{10}$
- $\frac{15}{5}$, $\frac{3}{1}$
- $\frac{14}{12}$, $\frac{144}{1}$
- $\frac{10}{12}$, $\frac{144}{1}$
- $\frac{6}{15}$, $\frac{3}{1}$
- $\frac{7}{14}$, $\frac{4}{3}$
- $\frac{8}{12}$, $\frac{3}{17}$
- $\frac{12}{15}$, $\frac{17}{17}$

Write a Mixed Number as an Improper Fraction

Write each mixed number as an improper fraction.

- $13 \frac{1}{9}$, $\frac{8}{9}$
- $14 \frac{2}{4}$, $\frac{11}{4}$
- $15 \frac{2}{5}$, $\frac{5}{14}$
- $19 \frac{4}{4}$, $\frac{7}{32}$
- $18 \frac{5}{2}$, $\frac{3}{17}$
- $3 \frac{5}{16}$, $\frac{5}{16}$

Add and Subtract Like Fractions

Add or subtract. Write each answer in simplest form.

- $\frac{8}{5} + \frac{1}{3}$, $\frac{4}{3}$
- $\frac{7}{3} + \frac{5}{5}$, $1 \frac{1}{7}$
- $\frac{9}{9} - \frac{3}{3}$, $\frac{10}{5}$
- $\frac{5}{5} - \frac{2}{1}$, $\frac{3}{1}$
- $\frac{2}{1} + \frac{2}{1}$, 1
- $\frac{7}{7} - \frac{12}{5}$, $\frac{6}{1}$
- $\frac{5}{3} + \frac{3}{4}$, $1 \frac{2}{5}$
- $\frac{4}{15} - \frac{1}{15}$, $\frac{1}{5}$

Multiplication Facts

Multiply.

- $29 \cdot 8 \times 11$, 88
- $30 \cdot 7 \times 8$, 56
- $31 \cdot 4 \times 12$, 48
- $32 \cdot 12 \times 7$, 84
- $33 \cdot 10 \times 13$, 130
- $34 \cdot 9 \times 7$, 63
- $35 \cdot 6 \times 8$, 48
- $36 \cdot 11 \times 12$, 132

ARE YOU READY?

Diagnose and Prescribe

NO INTERVENE

Diagnose and Prescribe Online	Simplify Fractions	Skill 19	Activity 19
	Writing a Mixed Number as an Improper Fraction	Skill 22	Activity 22
	Add and Subtract Like Fractions	Skill 43	Activity 43
	Multiplication Facts	Skill 36	Activity 36
Prerequisite Skill		Worksheets	Online
Are You Ready? Intervention			

YES ENRICH

Are You Ready? Enrichment Worksheets Online

Organizer

Are You Ready?

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

- denominator
- factors
- improper fraction
- like fractions
- multiples
- numerator
- proper fraction
- simplest form
- unlike fractions

Assessing Prior Knowledge

Diagnose and Prescribe

Use this page to determine where intervention is necessary or enrichment is appropriate.

Resources

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Are You Ready? Online Enrichment Worksheets

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

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Ready to Go On?

Quiz for Lessons 1 Through 4

1 Least Common Multiple

1. Markers are sold in packs of 8, and crayons are sold in packs of 16. If there are 32 students in Mrs. Reading's art class, what is the least number of packs needed so that each student can have one marker and one crayon and none will be left over? 4 packs of markers and 2 packs of crayons

2. Cans of soup are sold in packs of 24, and packets of crackers are sold in groups of 4. If there are 120 people to be fed and each will get one can of soup and one packet of crackers, what is the least number of packs needed to feed everyone such that no crackers or soup are left over?

Find the least common multiple (LCM). 5 packs of soup and 30 packets of crackers 3. 4 and 6 12 4. 2 and 15 30 5. 3, 5, and 9 45 6. 4, 6, and 10 60

2 Adding and Subtracting with Unlike Denominators

Add or subtract. Write each answer in simplest form.
7. $\frac{7}{5} - \frac{14}{3}$ 1 8. $\frac{8}{7} + \frac{24}{11}$ 9. $\frac{9}{8} - \frac{1}{10}$ 10. $\frac{6}{1} + \frac{1}{2}$ 11. $\frac{1}{2}$

11. Alexa needs to add $\frac{3}{4}$ cup of sugar for the recipe she is making. She has added $\frac{1}{2}$ cup already. How much more sugar does she need to add? $\frac{1}{4}$ c

3 Regrouping to Subtract Mixed Numbers

Subtract. Write each answer in simplest form.
12. $2\frac{1}{3} - 1\frac{1}{2}$ 13. $7\frac{3}{4} - 5\frac{2}{9}$ 14. $3\frac{3}{4} - 1\frac{5}{8}$ 15. $10\frac{1}{2} - 5\frac{3}{4}$ 16. $4\frac{6}{5}$

16. Mary Ann buys $4\frac{5}{8}$ pounds of bananas. She uses $1\frac{1}{2}$ pounds making banana bread. How many pounds of bananas does she have left? $2\frac{9}{8}$

4 Solving Fraction Equations: Addition and Subtraction

Solve each equation. Write the solution in simplest form. $a = 1\frac{1}{10}$ 17. $t + 2\frac{5}{8} = 9t = 6\frac{3}{8}$ 18. $5\frac{1}{6} = x - \frac{6}{7}$ 19. $g + \frac{1}{4} = 2\frac{10}{9}$ 20. $a + \frac{3}{8} = 1\frac{1}{7}$

21. Bryn bought $5\frac{1}{8}$ yards of material. She used $3\frac{7}{9}$ yards to make a dress. How much material does she have left? $1\frac{25}{72}$ yd

READY TO GO ON?
Diagnose and Prescribe

NO INTERVENE

YES ENRICH

Diagnose and Prescribe Online	Activity 1	1 Intervention	Lesson 1
	Activity 2	2 Intervention	Lesson 2
	Activity 3	3 Intervention	Lesson 3
	Activity 4	4 Intervention	Lesson 4
	Worksheets		Ready to Go On? Intervention

Ready to Go On? Enrichment Worksheets Online

Ready To Go On?

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

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Intervention and
Enrichment Worksheets

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CHAPTER 5
SECTION B

Ready To Go On?

Quiz for Lessons 5 Through 7

5 Multiplying Mixed Numbers

Multiply. Write each answer in simplest form.
 1. $1\frac{4}{7} \cdot 2\frac{3}{7}$ 2. $1\frac{6}{7} \cdot \frac{2}{7}$ 3. $\frac{8}{7} \cdot 2\frac{2}{3}$ 2 $\frac{3}{7}$

Find each product. Write the answer in simplest form.

4. $2\frac{7}{8} \cdot 1\frac{6}{8}$ 5. $1\frac{3}{5} \cdot 2\frac{1}{5}$ 6. $3 \cdot 4\frac{7}{8}$ 12 $\frac{7}{8}$

7. Robert is making trail mix. The recipe calls for $1\frac{2}{3}$ cups of raisins for each batch. Robert plans to make $2\frac{1}{2}$ batches. How many cups of raisins does he need? $4\frac{1}{6}$ cups

6 Dividing Fractions and Mixed Numbers

Find the reciprocal.

8. $\frac{7}{2}$ 9. $\frac{12}{5}$ 10. $\frac{5}{3}$ 5

Divide. Write each answer in simplest form.

11. $\frac{5}{3} \div 4\frac{20}{3}$ 12. $1\frac{10}{3} \div 3\frac{4}{5}$ 13. $1\frac{5}{5} \div 2\frac{1}{18}$ 18

14. Sophia has $10\frac{1}{2}$ yards of fabric to make banners for a school track meet. She needs $1\frac{2}{3}$ yards for each banner. How many banners can she make? 6 banners

7 Solving Fraction Equations: Multiplication and Division

Solve each equation.

15. $\frac{3}{2y} = 10$ 16. $6p = \frac{4}{1}$ 17. $\frac{3}{2x} = 9$ 13 $\frac{1}{2}$

18. Michael has a black cat and a gray kitten. The black cat weighs 12 pounds. The gray kitten weighs $\frac{5}{8}$ the weight of the black cat. How much does the gray kitten weigh? $7\frac{1}{2}$ pounds

Ready to Go On?

READY TO GO ON?
Diagnose and Prescribe

NO
INTERVENE

YES
ENRICH

Diagnose and Prescribe Online	Activity 7	7 Intervention	Lesson 7
	Activity 6	6 Intervention	Lesson 6
	Activity 5	5 Intervention	Lesson 5
Worksheets		Intervention	Ready to Go On?
Worksheets		Intervention	Ready to Go On?

Ready to Go On?
Enrichment
Worksheets
Online

Chapter Test



Find the least common multiple (LCM).

1. 10 and 15 2. 4, 6, and 18 3. 9, 10, and 12 4. 6, 15, and 20

Add or subtract. Write the answer in simplest form.

5. $4\frac{9}{12} - 2\frac{6}{12}$ 6. $1\frac{10}{12} + 3\frac{4}{20}$ 7. $\frac{3}{3} - \frac{8}{7}$ 8. $2\frac{1}{3} - 6\frac{1}{5}$
 9. $4\frac{5}{5} - 2\frac{2}{10}$ 10. $\frac{12}{12} + \frac{6}{11}$ 11. $\frac{8}{3} + \frac{4}{3}$ 12. $\frac{6}{5} - \frac{3}{2}$

13. On Saturday, Cecelia ran $3\frac{3}{5}$ miles. On Sunday, she ran $4\frac{4}{5}$ miles. How much farther did Cecelia run on Sunday than on Saturday?

14. Michael studied social studies for $\frac{3}{4}$ of an hour, Spanish for $1\frac{1}{2}$ hours, and math for $1\frac{1}{4}$ hours. How many hours did Michael spend studying all three subjects?

15. Quincy needs $6\frac{3}{4}$ feet of rope to tie down the things he is hauling in his truck. He finds a 9 foot long rope in his garage. How much extra rope does Quincy have?

Find the reciprocal.

16. $\frac{5}{3}$ 17. $\frac{11}{7}$ 18. $\frac{9}{5}$ 19. $\frac{8}{1}$, $\frac{1}{8}$, or 8

Multiply or divide. Write the answer in simplest form.

20. $1\frac{7}{4} \cdot \frac{9}{4}$ 21. $1\frac{8}{6} \cdot \frac{11}{3}$ 22. $2\frac{4}{4} \cdot 2\frac{3}{6}$ 23. $\frac{8}{7} \div 2$
 24. $3\frac{3}{5} \div 1\frac{12}{5}$ 25. $\frac{4}{5} \cdot 1\frac{3}{4}$ 26. $3\frac{8}{8} \div 1\frac{1}{2}$ 27. $\frac{8}{3} \cdot \frac{3}{2}$

Evaluate the expression $n \cdot \frac{1}{4}$ for each value of n . Write the answer in simplest form.

28. $n = \frac{8}{7}$ 29. $n = \frac{5}{2}$ 30. $n = \frac{9}{2}$ 31. $n = \frac{11}{4}$

32. A recipe for granola bars require $1\frac{1}{2}$ cups of flour. How much flour is needed to make a triple batch of granola bars?

Solve each equation. Write the solution in simplest form.

33. $3r = \frac{10}{9}$ 34. $n + 3\frac{1}{6} = 12$ 35. $5\frac{5}{6} = x - 3\frac{1}{4}$
 36. $\frac{5}{2}r = 9$ 37. $\frac{5}{4}m = 7$ 38. $y - 15\frac{5}{3} = 2\frac{1}{3}$
 39. Jessica purchased a bag of cat food. She feeds her cat 1 cup of cat food each day. After 7 days, she has fed her cat $\frac{3}{2}$ of the food in the bag. How many cups of food were in the bag when Jessica bought it?

Chapter Test

Resources



- Chapter 5 Tests
- Free Response (Levels A, B, C)
- Multiple Choice (Levels A, B, C)
- Performance Assessor

IDEA Works!

Modified Chapter Test

Organizer

Objective: Assess students' mastery of concepts and skills the chapter.



Interactive Online Edition

Chapter Test

Are You Ready?

Organizer

Objective: Assess students' understanding of prerequisite skills.

Prerequisite Skills

Place Value of Whole Numbers

Compare and Order Whole Numbers

Write Fractions as Decimals

Locate Points on a Number Line

Assessing Prior Knowledge

INTERVENTION

Diagnose and Prescribe

Use this page to determine where intervention is necessary or not

ment is appropriate.

Resources

Are You Ready? Intervention and Enrichment Worksheets

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Are You Ready? Online

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YES ENRICH

Are You Ready? Enrichment Worksheets Online

Diagnose and Prescribe Online	Activity 1	Skill 1	Place Value of Whole Numbers
	Activities 4 & 5	Skills 4 & 5	Compare and Order Whole Numbers
	Activity 26	Skill 26	Write Fractions as Decimals
	Activity 61	Skill 61	Locate Points on a Number Line
Worksheets		Worksheets	Prerequisite Skill
Are You Ready? Intervention			

ARE YOU READY?

Diagnose and Prescribe

NO INTERVENE

Vocabulary

Choose the best term from the list to complete each sentence.

- The answer to an addition problem is called the $\frac{\quad}{\quad}$ sum.
- The $\frac{\quad}{\quad}$ of the 6 in 5,672 is hundreds, place value.
- When you move $\frac{\quad}{\quad}$, you move left or right. horizontally
When you move $\frac{\quad}{\quad}$, you move up or down. vertically

Complete these exercises to review skills you will need for this chapter.

Place Value of Whole Numbers

Write the digit in the tens place of each number.

- 718 1
- 5,989 8
- 6,55 5
- 7,709 0

Compare and Order Whole Numbers

Order the numbers from least to greatest.

- 40, 32, 51, 78, 26, 43, 27
- 26, 27, 32, 40, 43, 51, 78
- 92, 91, 84, 92, 87, 90
- 84, 87, 90, 91, 92, 92
- 11, 23, 19, 33, 27, 31, 28, 18
- 18, 19, 23, 27, 28, 31, 31, 33

Find the greatest number in each set.

- 452, 426, 502, 467, 530, 512
- 711, 765, 723, 778, 704, 781, 781
- 1,053, 1,106, 1,043, 1,210, 1,039, 1,122, 1,210
- 143

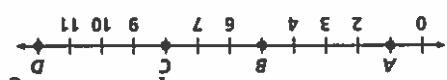
Write Fractions as Decimals

Write each fraction as a decimal.

- $\frac{1}{10}$ 0.25
- $\frac{4}{5}$ 0.83
- $\frac{6}{10}$ 0.625
- $\frac{1}{5}$ 0.16
- $\frac{6}{10}$ 0.4
- $\frac{5}{10}$ 0.81
- $\frac{2}{10}$ 0.5
- $\frac{4}{3}$ 0.75
- $\frac{11}{9}$ 0.81

Locate Points on a Number Line

Name the point on the number line that corresponds to each given value.



24. 5 B
25. 12 D
26. 8 C
27. 1 A

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Resources

Ready to Go On?
Intervention and
Enrichment Worksheets
Ready to Go On? Online
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Answers

6. with Alaska—mean: 2,395, median: 1,095, no mode; without Alaska—mean: 980, median: 840; no mode.

CHAPTER 6 SECTION A

Ready To Go On?

Quiz for Lessons 1 Through 3

1 Mean, Median, Mode, and Range

2. Find the mean, median, mode, and range of each data set. mean = 85, median = 85, no mode, range = 14

3. mean = 5, median = 5, mode = 5, range = 4

4. mean = 12, median = 12, mode = 12, range = 5

5. The table shows the number of people who attended each monthly meeting from January to May.

Number of People Attending	Jan	Feb	Mar	Apr	May
	27	26	32	30	30

a. Find the mean, median, and mode of the attendees. mean = 29; median = 30; mode = 30

b. In June, 39 people attended the meeting, and in July, 26 people attended the meeting. Add this data to the table and find the mean, median, and mode with the new data. mean = 26 and 30

6. The four states with the longest coastlines are Alaska, Florida, California, and Hawaii. Alaska's coastline is 6,640 miles. Florida's coastline is 1,350 miles. California's coastline is 840 miles, and Hawaii's coastline is 750 miles. Find the mean, median, and mode of the lengths with and without Alaska, and explain the changes.

7. The daily snowfall amounts for the first ten days of December are listed below.

3 Measures of Variation

8. The number of minutes it takes Will to complete each of 5 crossword puzzles is 18, 22, 21, 27, 19. What is the mean absolute deviation for the time needed to complete the puzzles, to the nearest tenth? 2.5

Test Scores	78	80	85	92	90	
Number of Pages in Each Book	145	119	156	125	128	135

What are the mean, median, and mode of this data set? Which one best describes the data set? mean = 3.1 in., median = 1.5 in., mode = 0 in.; median = 2 in., 5 in., 0 in., 0 in., 1 in., 0 in., 1 in., 3 in., 1 in., 4 in.

YES ENRICH

Ready to Go On? Enrichment Worksheets Online	Diagnose and Prescribe Online	Activity 3	3 Intervention	Lesson 3
		Activity 2	2 Intervention	Lesson 2
		Activity 1	1 Intervention	Lesson 1
Ready to Go On? Intervention		Worksheets Online	Intervention	Ready to Go On? Intervention

READY TO GO ON?
Diagnose and Prescribe

NO INTERVENE

Organizer

Objective: Assess students' mastery of concepts and skills in this section.

Resources

Assessment Resources
Section Quiz

INTERVENTION

Ready to Go On?
Intervention and Enrichment Worksheets
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Answers

3. Number of Movies Seen Last Year

Number (Intervals)	Frequency
0-5	2
6-10	5
11-15	4
16-20	4
21-25	1

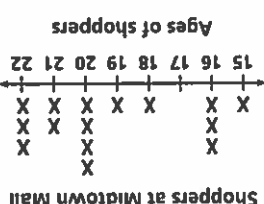
5. In general, more people use the Green Street bus than use the City Avenue bus. The spread of the data is greater for Green Street, which means that there is a greater variation in the number of passengers each day on the Green Street route. The number of passengers on the City Avenue route is more predictable each day.

CHAPTER 6 SECTION B

Ready To Go On?

Quiz for Lessons 4 Through 5

4 Line Plots, Frequency Tables, and Histograms



1. What are the range and mode of the data?
range = 7, mode = 20

2. How many of the shoppers surveyed were older than 20? 5

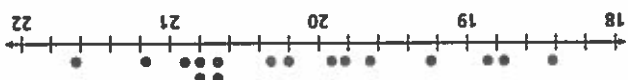
3. The table below shows the results of a survey about the number of movies a group of people saw last year. Use the data in the table to make a frequency table with intervals.

Number of Movies Seen Last Year	3	6
12	18	20
8	22	15
10	5	17
9	9	13
11	11	11
9	9	9
16	16	16

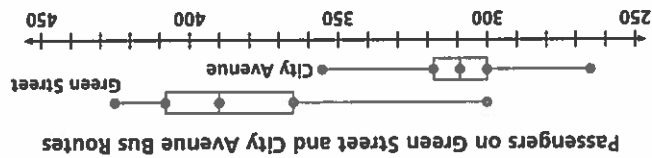
5 Describing Distributions

4. The data set and dot plot show the shot put throw distances (in meters) at a track meet. Describe the shape of the data distribution. *skewed*

20.80	19.82	21.63	18.42	20.20	20.68	20.32	20.80
21.16	18.86	19.24	19.91	20.68	18.75	20.90	19.63



5. The box-and-whisker plots show the distribution of passengers on two bus routes each day in a month. What conclusions can you make about the data?



READY TO GO ON?

Diagnose and Prescribe

Ready to Go On? Intervention	Worksheets	Diagnose and Prescribe Online
Lesson 4	4 Intervention	Activity 4
Lesson 5	5 Intervention	Activity 5

NO INTERVENE

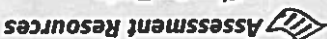
YES ENRICH

Ready to Go On? Enrichment Worksheets Online

Objective: Assess students' mastery of concepts and skills in the chapter.

INTERACTIVE Online Edition

Resources



Chapter Tests

• Free Response

• Multiple Choice

(Levels A, B, C)

• Performance Assessment

IDEA Worksl
Modified Chapter Test

Use the bar graph for Exercises 1–4.

1. Find the mean, median, mode, and range of the rainfall amounts. $\text{mean} = 2.25$, $\text{median} = 2.5$, $\text{mode} = 3$, $\text{range} = 2$

2. Which month had the lowest average rainfall? July

3. Which months had rainfall amounts greater than 2 inches? January and October

4. The rainfall in August was 0.5 inch. How is the mean rainfall amount affected when this data value is included? the mean rainfall decreases by 0.35 in.

Use the table for Exercises 5 and 6.

Number of Push-ups Performed				
35	33	25	45	52
18	21	21	18	38
41	27	35	40	53
24	38			

5. Make a box-and-whisker plot of the push-up data.

6. Find the interquartile range for the data set. 16

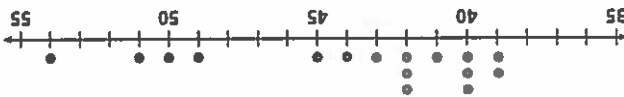
7. The number of goals scored by five hockey teams in a tournament were 4, 5, 7, 2, and 6. What is the mean absolute deviation for the number of goals scored? 1.44

8. The table shows the number of strawberries picked by customers at a pick-your-own strawberry patch. Organize the data in a line plot.

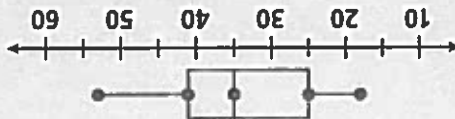
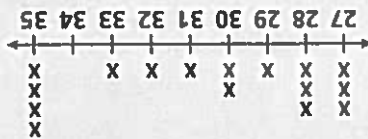
Number of Strawberries Picked				
28	33	35	27	35
29	35	28	28	35
30	27	30	35	28
30	27	30	27	31
32				

9. The data set and dot plot display the numbers of people attending each session in a lecture series at a museum. Describe the shape of the data distribution. skewed; the mean, median, and modes are varied.

42	50	43	39	42	54	42	40
44	51	49	41	40	45	39	40



Answers



8.

5.